REMARKS

Claim 88 has been amended. No new claims have been added. Claims 90-91 have been canceled. Claims 67-89 and 92-97 are pending.

The Office Action mailed March 31, 2004 included an objection to the drawings. Applicant's representative traversed the drawing objection in the previous amendment filed June 30, 2004. The Office Action Summary page of the final rejection does not indicate that new drawings are required. Accordingly, applicant's representative assumes that the drawing objection has been withdrawn. However, the Examiner is requested to clarify the record by confirming that the drawing objections have been withdrawn.

Claims 66-77, 79-82, 88-94, and 97-98 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Honoa (U.S. Patent No. 5,376,842) in view of Doblar (U.S. Patent No. 6,477,205). Claims 78 and 87 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over admitted prior art (APA) in view of Honoa. Claims 83-86 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Honoa in view of admitted prior art (APA). These rejections are respectfully traversed.

Claim 67 recites, *inter alia,* "a signal source having first and second signal outputs coupled to said first and second transmission members respectively; a termination circuit connected to at least one of said first transmission member and said second transmission member."

Claim 87 recites, *inter alia,* "first and second signal sources coupled to said first and second transmission members respectively; a termination circuit."

Claims 67 and 87 also recite, *inter alia,* "an impedance adjusting component coupled to said second transmission member and adapted to affect, by said coupling

thereto, a signal propagation factor of said second transmission member, whereby a relationship may be established between respective transmission times through said first and second transmission members of first and second signals received at said first and second transmission members from said respective first and second signal source outputs," while claim 88 also recites "whereby a relationship may be established between respective transmission times through said first and second transmission members ... and a termination circuit."

Claim 88 recites, *inter alia,* "a signal source having first and second signal outputs; a first transmission member ... member having a first length ... having a first characteristic impedance; a second transmission member ... having a second length, different from said first length, ... having a second characteristic impedance, whereby a relationship may be established between respective transmission times through said first and second transmission members ... by changing said second impedance; and a termination circuit."

Claim 92 recites, *inter alia,* "receiving a first signal transition ... through a first transmission member ... having a first signal propagation factor and a first geometric length, said first signal propagation factor related to a first characteristic impedance of said first transmission member; receiving a second signal transition ... through a second transmission member ... having a second signal propagation factor and a second geometric length, said second signal propagation factor related to a second characteristic impedance of said second transition member, said second geometric length different from said first genetic length; terminating said first characteristic impedance ... and said second characteristic impedance ... and receiving said first and second signal transitions at said first and second transmission members synchronously."

The subject matter quoted above is not disclosed or suggested in the cited references.

Honoa discloses an integrated circuit in which a phase difference between external and internal clocks are reduced by decreasing transistor stages from the input of an external clock to the output of an internal clock driver stages. The Office Action refers to Fig. 3 and asserts that Honoa discloses a first transmission member (412), a second transmission member (414), a signal source (404), and an impedance adjusting component (406).

The Office Action further asserts that the impedance adjusting component (406) is "adapted to affect, by said coupling thereto, a signal propagation factor of said second transmission member, whereby a relationship may be established between respective transmission times through said first and second transmission members of first and second signals received at said first and second transmission members from said respective first and second signal source outputs."

The Office Action then concludes that there are only minor differences between the subject matter recited in the claims and Honoa's disclosure, and cites to various secondary references. For example, with respect to independent claims 67, 88, and 90, the Office Action states the Honoa only fails to disclose a termination circuit, which is disclosed by Doblar. For independent claim 87, the Office Action cites to admitted prior art. It is respectfully asserted that the Office Action is fundamentally in error with respect to its analysis of Honoa.

Applicant respectfully submits that significant differences exist between the claimed invention and cited references.

The present invention is directed to minimizing clock skews by changing the apparent length of transmission lines. More specifically, according to the invention, the signal propagation times over a first medium and a second medium can be set to a specific signal propagation time relationship (for example, equal propagation time) even if the first and second mediums are, for example, transmissions lines of different lengths. If the clock signals are propagated along the transmissions lines, clock skew can be minimized. The signal propagation times are adjusted by adding, for example capacitive elements to the transmission line to change the propagation constant and delay time of the line, and then adding appropriate termination to the line to compensate for the added capacitive elements.

This is a fundamental characteristic of the invention which is not recognized by Honoa. The portion of Honoa relied upon by the Office Action is Fig. 3. The operation of that circuit is described at column 3, lines 1-29.

More specifically, Honoa states that "wiring impedances of the respective wirings 412, 413 and 414 from the input buffer 404 to the respective driver circuits 401, 402 and 403 are substantially equalized by suitably setting the capacitor 406 capacitance. Therefore, the clocks' attenuations and phase shifts in the wiring 412, 413 and 414 are equalized." Column 3, lines 15-23. All Honoa discloses is that the impedances of signal lines 412 and 414 are matched using the capacitors of circuit 406 so that lines 412 and 414 have similar signal propagation characteristics. That is, Honoa discloses maintaining identical signal propagation times per unit length over each transmission line, which only minimizes signal skew when the transmission lines are approximately equal length.

This is entirely different from subject matter defined in the the independent claims, which recite setting a signal propagation factor (claims 67, 87), or setting the

impedance of the second line (claim 88) to establish a relationship based upon signal propagation times, thereby permitting signal skew to be controlled among multiple transmissions lines having differing lengths. Additionally, claim 92 recites receiving signals synchronously over unequal (geometric) length transmission members. More specifically:

> Claims 67 and 87 recite "an impedance adjusting component coupled to said second transmission member and adapted to affect, by said coupling thereto, a signal propagation factor of said second transmission member, whereby a relationship may be established between respective transmission times through said first and second transmission members of first and second signals received at said first and second transmission members from said respective first and second signal source outputs."
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> Claim 88 recites "whereby a relationship may be established between respective transmission times through said first and second transmission members ... by changing said second impedance."
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> Claim 92 recites "receiving a first signal transition ... through a first transmission member ... having a first signal propagation factor and a first geometric length, said first signal propagation factor related to a first characteristic impedance of said first transmission member; receiving a second signal transition ... through a second transmission member ... having a second signal propagation factor and a second geometric length, said second signal propagation factor related to a second characteristic impedance of said second transition member, said second geometric length different from said first genetic length; terminating said first characteristic impedance ... and said second characteristic impedance ... and receiving said first and second signal transitions ... synchronously."

The above quoted features of the independent claims are are not taught or suggested by Honoa, the APA, or Doblar, whether considered individually or in combination.

Additionally, certain other recited claim features are not taught or suggested by Honoa. For example, the "signal source" 404 of Honoa identified by the Office Action clearly has a single output, and therefore cannot be the claim 67 recited "signal source having first and second signal outputs." See Fig. 3. In claims 67 and 87, Honoa also fails to disclose the recited "termination circuit."

Accordingly, independent claims 67, 87, 88, and 92 are believed to be allowable over the prior art of record. The depending claims, i.e., claims 68-86, 90, 93-98 are also believed to be allowable for at least the same reason as the independent claims.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

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Respectfully submitted,

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